

Weekly Coal Production

Production for Week Ended:
June 9, 1990



See State
Coal Profile

Preface

The *Weekly Coal Production (WCP)* provides weekly estimates of U.S. coal production by State. Supplementary data are usually published monthly in two supplements: the Coal Exports and Imports Supplement and the Domestic Market Supplement. The Coal Exports and Imports Supplement contains detailed monthly data on U.S. coal and coke exports and imports. The Domestic Market Supplement contains detailed monthly electric utility coal statistics, by Census Division and State, for generation, consumption, stocks, receipts, sulfur content, prices, and the origins and destination of coal shipments. This supplement also contains summary-level, monthly data for all coal-consuming sectors on a quarterly basis.

Preliminary coal production data are published quarterly, based on production data collected using Form EIA-6, "Coal Distribution Report." The coal production estimation error for a quarter at the national level (i.e., the difference between the sum of the weekly estimates for a quarter and the quarterly EIA-6 preliminary data) ranges from 1 percent to 4 percent.

Final coal production data are published annually, based on the EIA-7A coal production survey. The

revision error for a quarter at the national level (i.e., the difference between the EIA-6 preliminary data and the EIA-7A final data) ranges from 0.02 percent to 0.08 percent.

This publication is prepared by the Coal Division; Office of Coal, Nuclear, Electric and Alternate Fuels; Energy Information Administration (EIA) to fulfill its data collection and dissemination responsibilities as specified in the Federal Energy Administration Act of 1974 (P.L. 93-275) as amended. *Weekly Coal Production* is intended for use by industry, press, State and local governments, and consumers. Other publications that may be of interest are the quarterly *Coal Distribution Report*, the *Quarterly Coal Report*, *Coal Production 1988*, and *Coal Data: A Reference*.

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State Coal Profile: Kansas State Historical Society, page 4; Kansas State Geological Survey, page 5.

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Summary

U.S. coal production in the week ended June 9, 1990, as estimated by the Energy Information Administration, totaled 21 million short tons. This was 11 percent more than in the previous week, which included the Memorial Day holiday, and 5 percent

higher than in the comparable week in 1989. Production East of the Mississippi River totaled 13 million short tons, and production West of the Mississippi River totaled 8 million short tons.

Figure 1. Coal Production

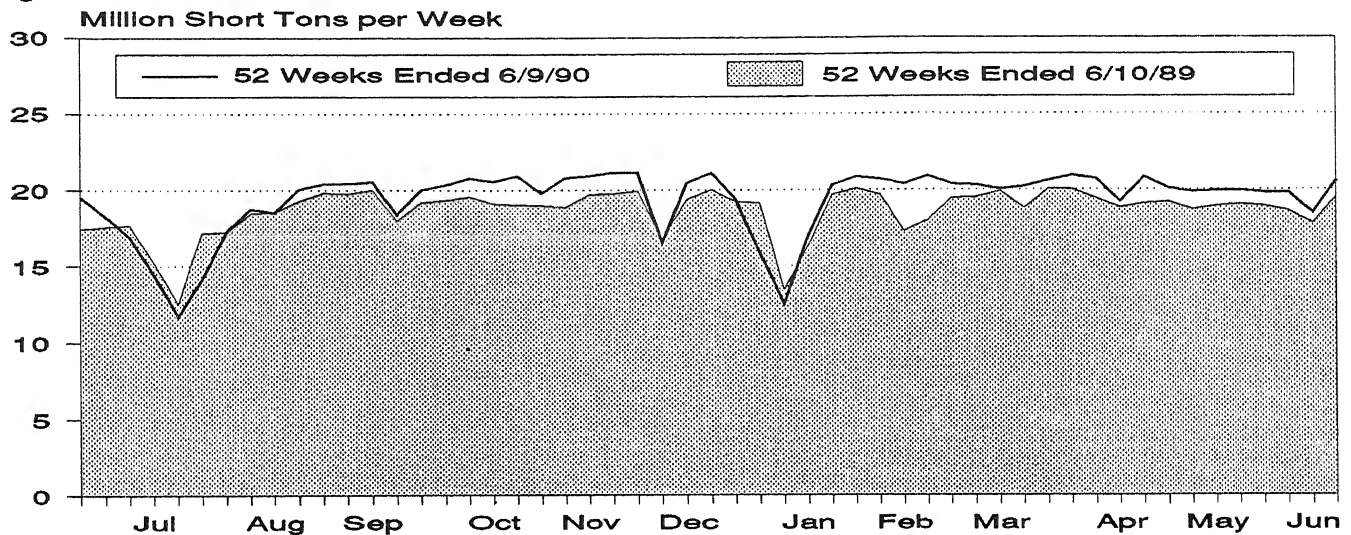


Table 1. Coal Production

	Week Ended			52 Weeks Ended		
Production and Carloadings	06/09/90	06/02/90	06/10/89	06/09/90	06/10/89	Percent Change
Production (Thousand Short Tons)						
Bituminous ¹ and Lignite	20,492	18,424	19,473	1,000,870	966,986	3.5
Pennsylvania Anthracite	80	69	62	3,401	3,631	-6.3
U.S. Total	20,572	18,493	19,535	1,004,271	970,617	3.5
Railroad Cars Loaded	135,140	121,423	130,440	6,500,728	6,410,597	

¹Includes subbituminous coal.

Notes: All data are preliminary. Totals may not equal sum of components due to independent rounding.

Sources: Association of American Railroads, Transportation Division, Weekly Statement CS-54A; Energy Information Administration, Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; and State mining agency coal production reports.

Table 2. Coal Production by State
(Thousand Short Tons)

Region and State	Week Ended		
	06/09/90	06/02/90	06/10/89
Bituminous Coal¹ and Lignite			
East of the Mississippi	12,730	11,010	12,058
Alabama	605	491	580
Illinois	1,197	938	1,161
Indiana	914	772	694
Kentucky	3,238	2,947	3,282
Kentucky, Eastern	2,441	2,190	2,389
Kentucky, Western	798	756	893
Maryland	59	54	72
Ohio	714	628	595
Pennsylvania Bituminous	1,609	1,390	1,346
Tennessee	140	118	131
Virginia	1,038	878	1,083
West Virginia	3,215	2,795	3,114
West of the Mississippi	7,762	7,414	7,415
Alaska	26	24	25
Arizona	233	210	236
Arkansas	2	2	2
Colorado	367	355	238
Iowa	8	7	8
Kansas	23	21	19
Louisiana	64	36	55
Missouri	79	71	59
Montana	708	718	739
New Mexico	565	425	578
North Dakota	583	591	577
Oklahoma	36	35	47
Texas	1,124	1,012	1,093
Utah	424	404	313
Washington	92	83	111
Wyoming	3,428	3,421	3,316
Bituminous ¹ and Lignite Total	20,492	18,424	19,473
Pennsylvania Anthracite	80	69	62
U.S. Total	20,572	18,493	19,535

¹Includes subbituminous coal.

Notes: All data are preliminary. Totals may not equal sum of components due to independent rounding.

Sources: Association of American Railroads, Transportation Division, Weekly Statement CS-54A; Energy Information Administration, Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; and State mining agency coal production reports.

State Coal Profile: Kansas

Total Area of State:

82,264 square miles

Area Underlain by Coal:

18,800 square miles

Demonstrated Reserve Base of Coal: (January 1, 1989)

1 billion short tons
(<1 percent of U.S. total)

First Year of Documented Coal Production:

1869 (36,891 short tons)

Peak Year of Coal Production:

1918 (8 million short tons)

1989 Coal Production:

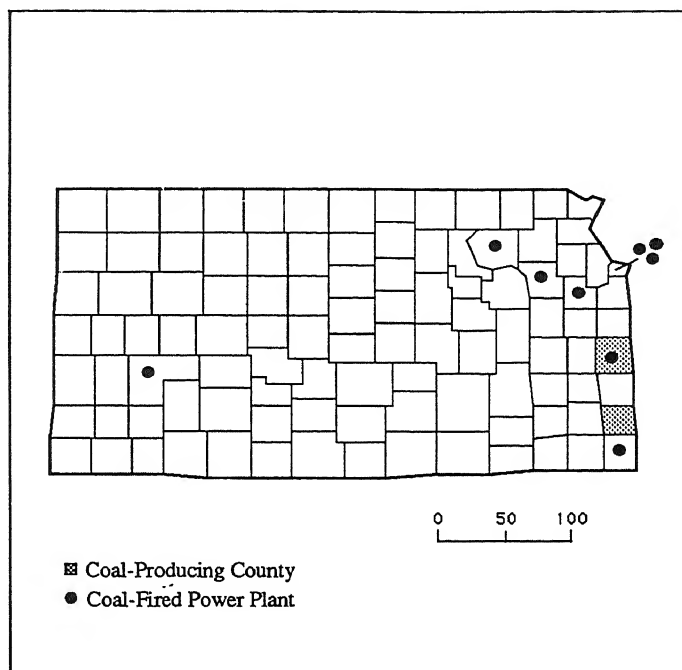
1 million short tons
(<1 percent of U.S. total)

1988 f.o.b. Average Mine Price:

\$30.59 per short ton
(U.S. average=\$22.07)

1989 Coal Consumption:

15 million short tons
(2 percent of U.S. total)



Number of Mines (1988)	6	<1
Underground	0	--
Surface	6	<1

Number of Miners (1988)		
(at mines producing more than 10,000 short tons)	268	<1
Underground	0	--
Surface	268	<1

Average Quality of Utility Coal Receipts (1988)	<u>Kansas</u>	<u>U.S. Average</u>
Heat Content		
(million Btu per short ton)	18.0	20.9
Sulfur Content		
(percent by weight)	0.7	1.3
Ash Content		
(percent by weight)	6.1	9.9

Coal mining is a relatively small industry in Kansas. In 1989, coal production was slightly over 1 million short tons, which ranked 24th among the 27 coal-producing States. The value of the coal produced was estimated to account for about 1 percent of the total value of all minerals produced during 1989 in Kansas, including crude oil and natural gas.

Coal deposits underlie about one-fourth of Kansas, with nearly all of the coal bituminous in rank and located in the eastern part of the State. The minable coalbeds are generally flat-lying and average about 2 feet in thickness. Kansas coal has a high heat content, averaging more than 21 million Btu per short ton. However, the use of the coal is hampered by its high sulfur content, which averages 4 percent by weight, and its high ash content, which averages 18 percent and can cause problems in boilers. In addition to the economically important bituminous coal, thin beds of lignite and subbituminous coal are present in the north-central part of the State.

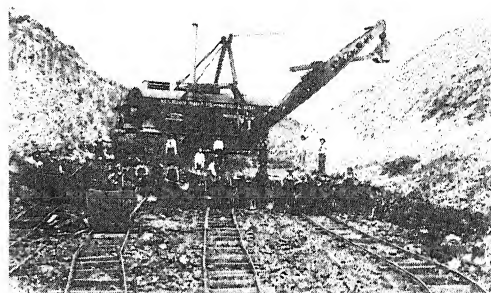
Historically, coal production in Kansas had an important role in the development of the State. Although coal was mined in the mid 1850's, the first commercially important coal production began in 1865 when a mine near Fort Scott, in the southeastern part of the State, began supplying coal for railroad locomotives. Later, other coal mines were opened to meet a growing demand for coal for the railroads and for domestic and industrial customers, including the large zinc and lead industry that developed in southeastern Kansas and adjoining States.

Coal production rose from about 1 million short tons in 1883 to a peak of nearly 8 million short tons in 1918, when over 40 percent of the output was used by the railroads. Production in subsequent years trended downward, falling to a low of 2 million short tons in the early 1930's. This was the result of a decline in economic activity due to the Depression, a drop in the railroad market as steam locomotives converted from coal to fuel oil, and competition in other markets from the oil and natural gas produced from large fields discovered in the State. Although coal production increased to 4 million short tons during World War II, it declined sharply afterwards, due largely to competition from petroleum. Production fell below 1 million short tons in the late 1950's, and has since averaged slightly more than 1 million short tons per year.

Underground mines produced large amounts of coal in the early years, but all of the coal produced in Kansas since 1964 has been from surface mines. Surface mining in the State began in the 1870's, when an early steam shovel was used to remove overburden from a coalbed near Pittsburg. As surface mining equipment improved, production from surface mines increased and in 1931 exceeded that from underground mines. In 1988, coal production was

from six surface mines. Two preparation plants were in operation in the State during the year.

About three-fourths of the coal produced in Kansas in 1989 was shipped to power plants. More than half of this utility coal was delivered to two of the nine coal-fired power plants in Kansas, and the rest was shipped to Missouri. Most of the remaining coal output was used by cement plants in Kansas.



A glimpse of coal mining in the past: An early steam shovel at a coal mine near Pittsburg, Kansas, around the turn of the century. Kansas was the first State to use steam shovels for coal mining.

Contrasting with the relatively stable trend of coal production in the State, coal consumption in Kansas has increased markedly. Rising from less than 1 million short tons in the early 1970's, annual coal consumption averaged about 15 million short tons since the mid-1980's. Virtually all of the coal was used to generate electricity. This dramatic rise occurred because the rising costs of oil and natural gas in the 1970's made coal the most economical fuel for power plants in the State. Of the total utility coal consumed in Kansas, nearly 90 percent is low-sulfur coal from Wyoming. Most of the other utility coal is received from Illinois, with the share of coal from Kansas amounting to about 2 percent.

At the beginning of 1989, the coal-fired power plants in Kansas had a net summer generating capability of 5,011 megawatts (MW), which was more than half of the total generating capability in the State. Electricity generation from coal has been rising and amounted to 22,907 gigawatthours in 1989. However, coal's share of the total generation has dropped below 70 percent from nearly 90 percent in 1984, due to a rise in generation from a nuclear power plant that began operation in 1985. The two largest coal-fired power plants in Kansas, both operated by the Kansas City Power and Light Company, are the 2,016-MW Jeffrey

Energy Center and the 1,316-MW La Cygne plant, which is the largest consumer of Kansas coal. By comparison, the nuclear power plant, which is operated by the Wolf Creek Nuclear Operating Corporation, has a generating capability of 1,128 MW.

With the market for Kansas coal limited by its high sulfur content, coal production in the State is expected to remain relatively unchanged through 1991. The use of coal in the Kansas cement industry is facing competition from petroleum coke and waste solvents. Petroleum coke is produced at petroleum refineries in Kansas and Oklahoma. Waste solvents, relatively new energy sources, have become available at low cost due to strict laws governing their disposal. Of the various clean coal technologies that could help expand the market for Kansas coal, fluidized-bed combustion is considered to be the most promising. Another energy source with potential for future development is the methane contained in several deep coalbeds in southeastern Kansas.

Sources

Energy Information Administration, *Coal Production* (various issues); *Quarterly Coal Report* (various issues); *Coal Distribution January-December 1989* (April 1990); *Cost and Quality of Fuels for Electric Utility Plants 1988* (August 1989); *Inventory of Power Plants in the United States 1988* (August 1989); *Electric Power Annual* (various issues); Bureau of Mines, U.S. Department of the Interior, *State Mineral Summaries 1990*; J.E. Sinor Consultants, Inc., *Kansas Coal Utilization Study*, prepared for the Kansas Coal Commission (November 1988); Kansas Geological Survey, *Strippable Coal Reserves*, Mineral Resources Series 5 (December 1976); W.T. Stoeckinger, "Methane from Coal in Southeast Kansas: The Rebirth of an Old Industry," *Proceedings of the 1989 Coalbed Methane Symposium* (Tuscaloosa, AL, April 1989), pp. 211-224; "Plant Census Shows More Than 400," *Coal* Vol. 26, No. 8 (November 1989), pp. 56-65.



Coal mining in Kansas is characterized by small, shallow pits, as shown here, that recover coal from beds averaging 10 to 15 feet thick.

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